

Isotopes Project Overview

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Introduction

The Isotopes Project compiles, evaluates, and disseminates nuclear structure and radioactive decay data for basic and applied research. The group coordinates its activities with both the national and international data networks and plays a major leadership role in the US Nuclear Data Program (USNDP). The traditional strong data evaluation effort of the group continues. The Isotopes Project has also become a lead data center for the development of electronic dissemination and new publication methods for nuclear data. The following projects have been completed within this annual report period:

- * Published evaluations for ^{170}Pt , ^{181}Pt , ^{181}Au , ^{181}Hg , ^{186}W , ^{187}Tl , and $A=91, 174, 206$ in Nuclear Data Sheets

- * Conducted a training workshop for evaluators of radioactive-nuclei decay data

- * Maintained and updated user-friendly Internet web sites for high-spin data, nuclear astrophysics data, neutron capture data, spontaneous fission data, and Nuclear Data References (>7000 users per month.)

- * Reported at professional meetings on developments in access capabilities to data for the benefit of the research community.

New research priorities provide special opportunities and challenges for the nuclear data program. Three particular areas of opportunity are: nuclear astrophysics, where there is a need for the collection and dissemination of laboratory and theoretical nuclear astrophysics data; critically evaluated decay data for the basic and applied research communities; high-spin research, where large detector arrays continue to generate data at tremendous rates. Consequently, the group has increased its evaluation and dissemination efforts in these areas while also proceeding with its traditional mass-chain and nuclide evaluations. The Isotopes Project has a strong interest in developing a proposal to the Department of Energy requesting support for the establishment of a refereed nuclear astrophysics data archive.

The Isotopes Project plans to maintain its leading role in data evaluation and dissemination. Development of Internet data dissemination will continue to be a major activity, the goal being to distribute data to the research community using convenient and effective formats, so that this information can readily be utilized in the advancement of science and technology.